

DISCUSSION OF THE CLAIMS

Claims 1-32 are active in the present application. Claims 19-32 are new claims. Support for the new claims is found in the original claims and in paragraph [0026] of the U.S. PG publication corresponding to the present application, i.e. US 2007/0208101. The claims are amended for clarity and to address matters of form. Support for the amendment is found in the originally presented claims.

No new matter is added.

REMARKS

The claims are amended to address matters of form and for clarity.

35 U.S.C. § 112, second paragraph

Applicants submit that Claim 4 is not indefinite. Although the Office alleges on page 2 of the May 10 Office Action that it is not clear which triazine carbamates and/or triazine ureas are embraced by the claim, Applicants submit that those of skill in the art reading the specification of the present application can readily determine the metes and bounds of the claimed invention. For example, page 7, lines 16 and 17 disclose that compounds of formula (I)-(III), described on page 2, are prepared by reacting compounds of formula (IV) with compounds of formula (VII). Claim 4 is a product-by-process claim which describes the reaction product of the compound of formula (IV) with a compound containing a hydroxyl or amino group and at least one of a methacryloyl or acryloyl group. Particularly preferred compounds of formula (VII) are described on page 6.

It is no mystery what reaction product is obtained by reacting a compound of formula (IV) of Claim 4. First, such a product is necessarily the 1,3,5-triazine carbamate which is recited in the preamble of the present claims. Second, the specification clearly discloses that the reaction forms a compound of formula (I)-(III).

The Office's assertions that the structure of the triazine carbamate and triazine urea are not shown or defined is not correct. The structures of these materials are explicitly described in the original specification.

The Office further asserts that one has to guess the structural makeup of the product of the process recited in Claim 4. The Office's assertions are contradictory to the evidence of record.

Applicants respectfully request withdrawal of the rejection.

The amendment to Claim 12 obviates the rejection.

The Office rejected Claims 13-18 as indefinite for the reason that the term “at least one” would not be understood by those of skill in the art. Applicants submit that it is readily apparent to both those skilled in the art and the layperson that “at least one” means exactly what is stated; namely, at least one of the compounds must be present. The Office’s assertion that this term would not be understood by those of skill in the art is baseless and unsupportable.

The Office further asserts that “a composition requires more than one ingredient” (see paragraph no. 3 on page 3 of the May 10 Office Action). The Office cites to no legal precedent or administrative authority for this assertion. The Office’s assertion is manifestly incorrect. A composition may be defined in any manner not repugnant to those of skill in the art. In Claims 13-18 the coating compositions are described with respect to at least one component contained therein. The “comprising” transitional phrase signals that the claim is open to other ingredients. Thus, other ingredients are not excluded.

The Office is respectfully requested to withdraw the rejection of Claims 13-18 for indefiniteness.

35 U.S.C. § 112, first paragraph

The Office maintained the rejection of the claims for lack of enablement. The Office is of the opinion that those of skill in the art would not know how to make the triazine components containing different units corresponding to, for example, the  $Z^1$ - $Z^3$  groups. Applicants provided an explanation of how such differently substituted triazine materials can be made on page 13 of the Amendment submitted on February 2, 2010. Applicants pointed out that those of skill in the art readily recognize that the reaction of the compound of

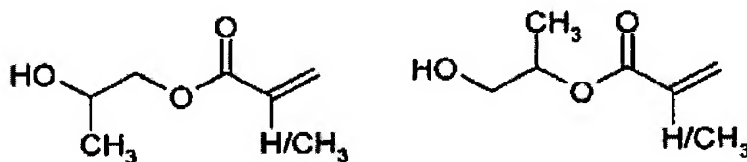
formula (IV) may be carried out in steps with different amounts of substituents corresponding to groups representing the  $Z^1$ - $Z^3$ -containing reactants.

Applicants submit the rejection of the claims should be withdrawn in view of the fact that there is no evidence of record supporting the Office's assertions.

On page 5 of the May 10 Office Action, the Office argues that forming a differently substituted triazine product would necessarily result in a mixture of products. Applicants have already explained on the record why this does not happen when a stepwise substitution is carried out. The Office is requested to kindly give Applicants' arguments complete consideration.

Further in this regard the original specification discloses on page 7, lines 37-39 a mixture of methyl and n-butyl-1,3,5-triazine carbamates as representative of the compound of formula (IV) (see present Claim 4). The original specification therefore discloses an embodiment of the invention in which the core of the molecule is substituted with different R, X and/or Z groups.

Other substituent groups such as 2-hydroxypropyl (meth) acrylate may be used to make the claimed products (see page 6, lines 13-22 of the specification). This material exists as a mixture of isomers (see chemical structures below) providing further proof that the claimed invention can be made by certain mixtures of starting materials.



Further in this regard Applicants draw the Office's attention to US 2007-0209553 corresponding to U.S. 11/547,476. Example 2 (see paragraphs [0167]-[0170] describes the use of a 1,3,5-triazine derivative that has mixed substituents, i.e., "a mixed methyl/n-butyl 1,3,5-triazine derivative.." Applicants submit that this information provides proves that those

of skill in the art would understand that making it is possible to make a 1,3,5-triazine carbamate from a starting material mixture that forms a product having variable substituents without the undue experimentation alleged by the office on page 8 of the May 10, 2010 Office Action.

On page 7 of the May 10 Office Action the Office asserts that the present claims would read on a significant number of inoperative embodiments. Again the Office points to no evidence in support of its conclusion.

Applicants draw the Office's attention to the new dependent claims in which the  $R^1$ - $R^3$  groups are the same, the  $Z^1$ - $Z^3$  groups are the same and the  $X^1$ - $X^3$  groups are the same.

#### Double Patenting

Applicants pointed out on page 14 of Applicants' February 2, 2010 Amendment that the product-by-process form of Claim 4 removes it from being considered a duplicate of Claim 1. The Office appears to have given Applicants' arguments no consideration.

Applicants draw the Office's attention to MPEP 2173.05(p)(I) which further makes it clear that a product-by-process claims is different in scope to a corresponding claim.

2173.05(p)Claim Directed to Product-By-Process or Product and Process[R-5]

There are many situations where claims are permissively drafted to include a reference to more than one statutory class of invention.

#### I.PRODUCT-BY-PROCESS

A product-by-process claim, which is a product claim that defines the claimed product in terms of the process by which it is made, is proper. In re Luck, 476 F.2d 650, 177 USPQ 523 (CCPA 1973); In re Pilkington, 411 F.2d 1345, 162 USPQ 145 (CCPA 1969); In re Stepan, 394 F.2d 1013, 156 USPQ 143 (CCPA 1967). A claim to a device, apparatus, manufacture, or composition of matter may contain a reference to the process in which it is intended to be used without being objectionable under 35 U.S.C. 112, second

paragraph, so long as it is clear that the claim is directed to the product and not the process.

**An applicant may present claims of varying scope even if it is necessary to describe the claimed product in product-by-process terms.** Ex parte Pantzer, 176 USPQ 141 (Bd. App. 1972).

Applicants submit the Office's rejection of Claim 4 for double patenting is legally not supportable and should be withdrawn.

#### Obviousness-Type Double Patenting

On pages 14 and 15 of Applicants' February 2, 2010 Office Action it was pointed out that present Claims 1, 2, 4 and 5 are drawn to a product whereas Claims 36-49 of co-pending 10/593,308 are drawn to a process. The Office's assertion that the products of the present claims are encompassed by the process claims of the co-pending application is not supportable as a matter of fact or law. The obviousness-type double patenting rejection should thus be withdrawn at least with respect to Claims 1, 2, 4 and 5.

The Office now argues that the product claims of the present application should nonetheless be rejected over the process of making described in the co-pending application. Applicants submit that it is readily evident that the Office has applied an incorrect legal standard to the obviousness-type double patenting rejection. The determination of obviousness when it comes to obviousness-type double patenting requires a comparison of the respective claims. The respective disclosure of the specification of the co-pending application may not be considered in this analysis. The question is whether the product of the present claims is obvious over the process of the co-pending claims. The rejection of the claims is legally not supportable.

Irrespective of the impropriety of the rejection, Applicants submit herewith a Terminal Disclaimer to obviate the rejection. The filing of a Terminal Disclaimer is not an

admission of obviousness. As stated by the Federal Circuit in *Ortho Pharmaceutical Corp. v. Smith*: “[i]n legal principle, the filing of a terminal disclaimer simply serves the statutory function of removing the rejection of double patenting, and raises neither presumption nor estoppel on the merits of the rejection. It is improper to convert this simple expedient of ‘obviation’ into an admission or acquiescence or estoppel on the merits.” See *Ortho Pharmaceutical Corp. v. Smith*, 22 USPQ2d 1119 (Fed. Cir. 1992) at 1124.

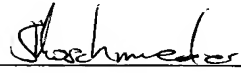
For the reasons discussed above in detail, Applicants request allowance of all now-pending claims.

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